

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing of claims in the application.

1. (currently amended) A process to isolate a neurotrophin homölog from a mixture ~~containing other proteins and~~ comprising variants of that neurotrophin homölog, wherein the process comprises: ~~a) loading the mixture containing said neurotrophin homölog onto a hydrophobic interaction chromatography resin;~~ b) eluting the ~~neurotrophin~~ neurotrophin homölog from the a hydrophobic interaction chromatography (HIC) resin with an elution buffer under ~~condition~~ conditions in which the neurotrophin homölog separates from the variant variants; and ~~c) collecting the neurotrophin homölog.~~

2. (new) The process of claim 1, wherein said HIC resin comprises a functional group selected from phenyl, octyl, propyl, alkoxy, butyl, and isoamyl functional groups.

3. (new) The process of claim 2, wherein said HIC resin comprises a functional group selected from phenyl, octyl, propyl, alkoxy, butyl, and isoamyl functional groups.

4. (new) The process of claim 2, wherein said HIC resin comprises a functional group selected from phenyl, octyl, and propyl functional groups.

5. (new) The process of claim 2, wherein said HIC resin comprises a phenyl functional group.

6. (new) The process of claim 5, wherein said HIC resin comprising a phenyl functional group is selected from Phenyl Toyopearl media, Phenyl Sepharose Fast Flow Low Sub (low substitution), and TSK Phenyl 5PW.

7. (new) The process of claim 1, wherein said elution buffer comprises a salt selected from sodium chloride, sodium citrate, tetramethyl ammonium chloride, ammonium sulfate, ammonium citrate, ammonium acetate, and potassium chloride.

8. (new) The process of claim 7, wherein said elution buffer comprises a salt concentration of about 0.5 M to about 3 M.

9. (new) The process of claim 7, wherein said elution buffer comprises a salt concentration of about 0.5 M to about 2.5 M.

10. (new) The process of claim 7, wherein said elution buffer comprises a salt concentration of about 0.8 M to about 1.5 M.

11. (new) The process of claim 7, wherein said elution buffer comprises a salt concentration of about 1.0 M to about 2.5 M.

12. (new) The process of claim 11, wherein said elution buffer comprises a salt concentration of about 1.25 M to about 1.75 M.

13. (new) The process of claim 7, wherein said elution buffer comprises a salt concentration of about 1 M to about 3 M.

14. (new) The process of claim 13, wherein said elution buffer has a pH of about pH 7.

15. (new) The process of claim 7, wherein said elution buffer comprises a salt concentration of about 2 M salt, and includes an organic solvent.

16. (new) The process of claim 15, wherein said elution buffer comprises about 10% alcohol, and has a pH of about pH 7.

17. (new) The process of claim 1, wherein said elution buffer comprises an organic solvent.

18. (new) The process of claim 17, wherein said organic solvent comprises an alcohol.

19. (new) The process of claim 18, wherein said alcohol is an alcohol having 1 to 10 carbon atoms.

20. (new) The process of claim 18, wherein said alcohol is selected from methanol, ethanol, iso-propanol, n-propanol, or t-butanol, as well as glycerol, propylene glycol, ethylene glycol, hexylene glycol, polypropylene glycol, polyethylene glycol, and lower alkylene glycols.

21. (new) The process of claim 17, wherein said organic solvent comprises acetonitrile.

22. (new) The process of claim 17, wherein said elution buffer comprises an organic solvent at a concentration of about 5 to about 25% (v/v).

23. (new) The process of claim 22, wherein said organic solvent is at a concentration of about 5 to about 20% (v/v).

24. (new) The process of claim 1, wherein said elution buffer has a pH of from about pH 5 to about pH 8.

25. (new) The process of claim 24, wherein said elution buffer has a pH of from about pH 6 to about pH 8.

26. (new) The process of claim 24, wherein said elution buffer has a pH of from about pH 6.5 to about pH 7.5.

27. (new) The process of claim 24, wherein said elution buffer has a pH of about pH 7.

28. (new) The process of claim 1, wherein said elution buffer comprises a buffering compound selected from ammonium, acetate, citrate, phosphate, succinate, 2-(N-Morpholino)ethanesulfonic acid (MES), N-2-(Acetamido)-2-iminodiacetic acid (ADA), BIS-TRIS Propane, piperazine-N,N'-bis(2-ethanesulfonic acid) (PIPES), N-(Carbamoylmethyl)-2-aminoethanesulfonic acid (ACES), imidazole, diethylmalonic acid, 3-(N-Morpholino)propanesulfonic acid (MOPS), 3-(N-Morpholino)-2-hydroxypropanesulfonic acid (MOPSO), 2-[(2-hydroxy-1,1-bis[hydroxymethyl]ethyl)amino]ethanesulfonic acid (TES),

Tris(hydroxymethyl)aminomethane (TRIS), N-2-Hydroxyethylpiperazine-N'-2-ethanesulfonic acid (HEPES), N-(2-hydroxyethyl)piperazine-N'-3-propanesulfonic acid (HEPPS), N-tris-hydroxymethyl)methylglycine (TRICINE), glycine amide, N,N-bis(2-hydroxyethyl)glycine (BICINE), glycylglycine, and borate buffers.

29. (new) The process of claim 1, wherein said elution buffer comprises MOPSO.